



Attorney's Docket No. 028870-057

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of )  
Guy LaTorre et al. ) Group Art Unit: 1615  
Application No.: 09/488,202 ) Examiner: R. Bennett  
Filed: January 19, 2000 )  
For: Compositions and Methods for )  
Treating Nails and Adjacent Tissues )

Response

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

In complete response to the Office Action mailed August 27, 2001, reexamination of the application and reconsideration of the rejections are respectfully requested in view of the following remarks. Applicants first wish to thank the Examiner for the helpful telephone conversation September 13, 2001, regarding the Declaration Under 37 C.F.R. § 1.132 filed with Applicants' Request for RCE filed July 5, 2001. Information clarifying the experiments presented in the declaration are presented below.

Claims 17-18 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants respectfully traverse this rejection.

According to the Office Action, the language "other cosmetically useful additives" makes claims 17-18 indefinite. Definiteness must be analyzed in light of the content of the application disclosure, the teachings of the prior art and the claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made. In this case, one of skill in the art

of cosmetics would readily recognize the types of additives indicated by this term. Moreover, such terms are recognized in the art such that one of skill in the art could properly interpret the claim. *See, for example, U.S. Patent No. 5,720,949 and U.S. Patent No. 5,624,664.* In view thereof, Applicants respectfully request that this rejection be withdrawn.

Claims 1-8 and 14-16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Witbeck et al., U.S. Patent No. 5,508,027 in further view of Bonfield et al., U.S. Patent No. 5,728,753. Claims 11-13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Witbeck et al. and Bonfield et al., in further view of Zook, U.S. Patent No. 5,181,914. Claim 9 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Witbeck et al. and Bonfield et al., in further view of Shepherd et al., U.S. Patent No. 3,914,405. Claim 10 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Witbeck et al. and Bonfield et al., in further view of LeGrow, U.S. Patent No. 5,403,402. Applicants respectfully traverse each of these rejections.

Claim 1 is directed to a method for treating nails comprising applying a composition comprising an effective, nail-enhancing amount of non-interlinked particles of bioactive glass to the nails for a suitable amount of time. Independent claim 14 is directed to a method for treating nails in mammals other than humans comprising applying a composition comprising an effective, nail-enhancing amount of non-interlinked particles of bioactive glass to the nails for a suitable amount of time. Independent claim 16 relates to a method for treating nails comprising applying a composition comprising an effective, nail-enhancing amount of bioactive extract to the nails for a suitable amount of time. These methods allow enhancement of the hardness and durability of the nail body.

Witbeck relates to methods and compositions for strengthening nails by the periodic application of synthetic gums of acrylic polymer films on the nail body. The

compositions may contain an alkali metal base and a volatile fragrance. The process and compositions of Witbeck involve the use of polymers and films to coat nails, not bioactive glass.

Bonfield relates to a bioactive composite material for the repair of hard and soft tissues. The compositions contain a combination of a polyolefinic binder with certain bioactive glass materials. The composites bond actively with soft tissues, and facilitate the production of implants tailored for highly specific medical requirements.

As discussed at the interview of May 1, 2001, Bonfield does not teach that use of bioactive glass as claimed would penetrate into the pores of nails as found by the present inventors. Neither Bonfield nor Witbeck disclose the nail enhancing ability of bioactive glass discovered by the present inventors.

Moreover, Applicants' declaration submitted July 5, 2001, provides comparative data as requested at the interview showing that neither a solution including calcium ions alone nor a solution of bioinert glass has the effect of bioactive glass on nails. As shown in the declaration, Leg #1 and Leg #2 were run with a bioactive glass. Leg #3 was run with a bioinert glass. The bioactive glasses of Legs #1 and 2 were the only ones to precipitate a HA layer onto the surface of the nail. The properties of the glasses used in the five leg experiment set forth in the Declaration under 37 C.F.R. § 1.132 are explored in the attached article, Ogino et al., *Journal of Biomedical Material Research*, 14:55-64 (1980). Specifically, the glass of Leg #3 is shown to be non-bioactive (see Table II of Ogino et al.).

The findings of the Declaration are not taught by the cited patents, and, thus, the claimed method would not have been obvious from Bonfield or Witbeck or a combination thereof. Since the combination of Witbeck and Bonfield would not have made the claimed invention obvious, Applicants respectfully request that each of the

rejections be withdrawn. In light of the previously submitted declaration and the enclosed article, Applicants believe the claims are now allowable.

Applicants believe they have responded to all matters raised in the above referenced Office Action and that the application is now in condition for allowance. If the Examiner has any questions concerning this Application or this Reply and Amendment, she is invited to contact the undersigned.

Respectfully submitted,

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